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Mr. Gregory Ham
U.S. Environmental Protection Agency
841 Chestnut Building
Ninth and Chestnut Streets
Philadelphia, Pennsylvania 19107

Subject: Final Report
TDD No. F3-9106-20
EPA DSN VA-589
Facility ID No. VAD988197133
Hampton Roads Welders (NS007)
Chesapeake, Virginia Beach, Virginia

Dear Mr. Ham:

Submitted herewith is the final Preliminary Assessment report for the subject site. It should be noted that this is the initial submission for this project and no draft report was previously submitted. The contents of the report are based on an evaluation of information contained in the site files provided, on the results of a review of regional and local hydrogeologic literature, and on data collected during a field evaluation performed in July 1991. Based on this review, the following is offered for EPA's consideration:

- It is recommended that no further action under CERCLA be pursued for the subject site. A rough Hazard Ranking System (HRS) score of (b) was obtained for the site. This score is based on available and projected information and is reflective of the limited groundwater and surface water usage.

In the event that a sampling inspection is determined to be necessary, the following is offered.

Proposed Sampling Plan

The proposed sampling locations include the following:

- The five on-site monitoring wells should be sampled.
- An aqueous sample and a sediment sample should be taken from the no. 1 lime pond.
- A surface soil sample should be taken from the no. 2 lime pond.

- A total of four surface soil samples should be taken from the southern portion of the site: one from the drum storage area, one from the area of the storage shed, one from the area of the oxygen, nitrogen, and argon storage tanks, and one from the former location of the underground gasoline and diesel fuel tanks.

- A background surface soil sample should be collected.

The subject site is located in an industrial and residential area of Norfolk, Virginia. The site is situated on the corner of Bowdens Ferry Road and 25th Street, adjacent to railroad tracks. The total area of the subject site is roughly five acres.

The active site has been used since 1947 as a manufacturing and bottling facility of industry gases such as argon, acetylene, nitrogen, oxygen, and helium. The site is currently owned by National Welders, which purchased the site from Union Carbide Linde Air Products on March 25, 1991. Union Carbide acquired the property from Prest-O-Lite Company, Incorporated on February 20, 1947. Prest-O-Lite Company bought the site on June 15, 1936; it is not known what activities occurred on site during Prest-O-Lite Company's ownership. The site consists of a 15,000-square foot building that is used to house portable bottle-filling racks, acetylene-manufacturing equipment, paint spray booths, a shop blast area, and offices. In 1937, aerial photographs identified two large vertical tanks in the area of the site. Aerial photographs taken in 1964 revealed that the tanks were no longer visible, and in 1985, a raised bermed impoundment containing light-toned material and a pipeline was identified.

During the manufacture of acetylene gas, a lime slurry is produced. Historically, the lime slurry has been deposited into lime ponds located on the western side of the site. The lime ponds consisted of a raised bermed impoundment. The ponds were roughly 1,800 square feet each in size. The lime ponds were constructed of clean soil; grassy vegetation helped prevent erosion. Representatives of National Welders Company indicated that the second lime pond on the southwestern portion of the site was removed by a contractor. Lime pond no. 1 is currently active; the contractor removes lime from this pond for resale. In the future, lime is to be pumped directly from the manufacturing process to a transport vehicle, thereby eliminating lime deposits into on-site impoundments.

Other wastes, such as used paint booth filters and shot blast dust (old paint chips), are collected and stored in drums along the southern fence line. The drums are placed on wooden pallets above the ground and are disposed periodically by Chemical Waste Management Corporation. The used paint booth filters in the disposal drums were found to have chromium at levels of 202.1 mg/l. Representatives of National Welders indicate that this waste is disposed as nonhazardous waste.

Storage vessels and liquid-gas-filling equipment are kept in a storage shed south of the main building on site. The shed, located along the southern fence line, maintains unused materials such as methyl ethyl ketone (MEK), 1,1,3-trichloroethane, paint, and oil. The MEK and 1,1,3-trichloroethane are solvents used during the cylinder-painting process. This area is unrestricted to on-site personnel. The site was equipped with two in-ground diesel and gasoline storage tanks of unknown capacities. These have been removed. No leaks are known to have occurred from the tanks.

A 2,000-gallon in-ground storage tank located north of the main building is utilized for maintaining heating oil for the manufacturing building. A leak in the tank was discovered in the early part of 1991, and the tank was replaced with a new tank. The resulting oily soil was removed and placed on plastic to await disposal. The soil was present during the FIT site visit.

Five monitoring wells were installed on site. One well was installed on the southeastern corner of the site, one in the northwestern corner of the site, one 50 feet east of the northeastern corner of the no. 1 lime pond, one roughly 20 feet west of the decanting vessels, and one 50 feet west of the liquid nitrogen storage tank. According to site representatives, no well information or sampling analysis was available for on-site monitoring wells. The representatives were not aware of the reasons for the well installation.

Residents within the study area rely on three water companies and three military installations for their drinking water. The city of Chesapeake serves an estimated 42,305 business and individual accounts. The city obtains its water from four different sources outside the study area for four separate service areas. The public utilities department for the city of Portsmouth services an estimated 31,500 business and individual accounts in the city of Portsmouth and portions of the cities of Suffolk and Chesapeake. The city of Portsmouth obtain its water from two wells and four lakes. Well nos. 1 and 2 are located 19 miles west-southwest of the site. The 4 lakes are located between 18 and 20 miles west of the site. The public utilities department for the city of Norfolk serves an estimated 65,000 business and individual accounts in Norfolk. The city of Norfolk obtains water from nine surface water intakes and four wells all located outside the study area. The United States Naval Shipyard serves an estimated working population of up to 20,000 people and purchases all its water from the city of Portsmouth. The United States Naval Supply Center serves an unknown population and purchases its water from the city of Portsmouth. The United States Naval Base at Sewell Point (USNSP) serves an estimated daytime population of 90,000 people on the base. USNSP purchase its water from the city of Norfolk. No surface water intakes are known to exist 15 miles downstream of the site. All residents not served by public water systems (unknown number of residents) are assumed to obtain their water from private wells. No home wells were identified for the study area.

If you have any further questions, please contact me.

Respectfully submitted,

(b) (4) [redacted]

Project Manager

Reviewed by,

(b) (4) [redacted]

Section Supervisor

Approved by,

(b) (4) [redacted]

Regional Manager, FIT 3

RT/sjm